

**EPA REVIEW OF  
THE INTERIM MEASURE/INTERIM REMEDIAL ACTION (IM/IRA)  
DECISION DOCUMENT AND CLOSURE PLAN FOR THE PRESENT LANDFILL  
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE, GOLDEN, COLORADO**

1. **Section 1.0, Introduction, Page 2.** The last paragraph discusses the scope of the IM/IRA and indicates that it is unknown if the "landfill is impacting the groundwater." Because there is a known connection between the landfill and the groundwater, decoupling the landfill from the groundwater will produce an incomplete remedial action for the landfill if only the landfill cover is addressed. The revised IM/IRA should state that these analyses indicating groundwater impacts by the landfill or to the landfill will be submitted as part of the final design and any appropriate measures will be performed prior to the construction of the final cover, if warranted. This is required in order to prevent any disruption of the final cover.
2. **Section 2.9, Pages 17 and 18.** This section discusses the nature and extent of contamination. The sixth bullet on page 18 lists the data sets available for use in an assessment of groundwater. Data from the period 1996 through 1999 are not listed. This data should be included or the document should provide an explanation for this data gap.
3. **Section 3.0, Page 22.** This section discusses your project approach. Footnote 6 states that "This IM/IRA does not change the decisions made in the PAM or the modifications to the PAM". You also state in the text that the leachate collection and treatment system will be addressed in a separate document. We do not concur with this approach. You have proposed a change in the configuration of the seep discharge point and now are proposing a long-term solution to the seep conditions at OU7. We assert that all actions which affect the seep management must be included within this IM/IRA. The IM/IRA must be an all inclusive document and address all issues within the present landfill. Therefore, the revised document must incorporate appropriate plans and design for seep management and regulatory compliance.
4. **Section 3.1, Pages 23 to 26.** This section discusses cover design alternatives. The third paragraph on page 23 implies that a Subtitle C cover is not appropriate for use at the Present Landfill. Available published information does not support this discussion relative to prescriptive Subtitle C covers. This paragraph should be revised to state that a Subtitle C cover is the prescriptive cover for the site and that available published information on the performance of Subtitle C covers shows that they will perform adequately if constructed at the Present Landfill.

Because a Subtitle C cover is not a "clay barrier layer," the general discussion of "clay barrier layers" presented in the third paragraph on page 23 is meaningless and out of context. This general discussion is misleading and should be deleted, or its context with respect to the performance of a Subtitle C cover should be provided with supporting documentation.



ADMIN RECORD

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Table 1, Page 24 is titled "Comparison of Design Alternatives." The first row, third column indicates that recent studies have indicated that conventional Subtitle C covers do not remain effective in semi-arid environments, such as that found at Rocky Flats. This state is inconsistent with published information. The language in this table should be changed to be consistent with the revised language in footnote 7, page 23.

The sixth bullet on page 26 states that the gas venting layer (if required) will be incorporated into the biota barrier layer. The design of the gas venting system and the technical feasibility of incorporating a gas venting layer into the biota barrier layer are design issues to be resolved during detailed design of the cover system. This bullet mistakenly implies that the concept, as presented, is acceptable. This bullet and Section 3.2.3, Page 28, should be revised to clarify that the design of the gas venting system has issues to be resolved during detailed design.

5. **Section 3.2.6, Page 29.** This section mentions that the passive leachate collection and treatment system will be "extended" to the new eastern slope surface. Please provide additional details describing this system and how it is intended to function to satisfy regulatory requirements.
6. **Section 5.2.5, Page 41.** This section discusses inspection and maintenance. Footnote 11 indicates that the cover will be inspected after precipitation events greater than 1 inch in a 24-hour period. Experience at Rocky Mountain Arsenal and in the region indicates that substantial damage can occur to un-vegetated or sparsely vegetated soil surfaces during localized precipitation events. Therefore, covers should be inspected after precipitation events greater than 0.5 inch in a 24-hour period.
7. **Section 7.3, Page 52.** This section does not address the periodic monitoring and maintenance of the passive leachate collection and treatment system. This must be included and addressed in the IM/IRA.
8. **Section 8.3.2, Page 58 & 59.** This section discussed the proposed management of treated seep water. NPDES requires that any discharge into waters of the US be regulated **at the discharge point**, which in your proposal would be at the point it leaves the pipe from the landfill (not at the site boundary). This must be clarified in the revised IM/IRA. Also, the analytes to be monitored must 1) include those that are required under your NPDES permit (page 9 of 49); 2) include all analytes/effluent characteristics as set forth in the effluent guidelines for hazardous waste landfills, found in 40 CFR 445.11; and 3) be analyzed on a monthly basis. These requirements also apply to any other seeps which exist from the landfill. These points must be clarified and reflected in the revised IM/IRA document.

Also, in paragraph a, page 59, you state that "The requirement for a modification of the existing permit to include the passive leachate collection and treatment system outfall is waived by RFCA." Please provide further rationale to support this statement or delete it. Your proposed re-configuration of the seep system/landfill must be addressed and comply with regulatory requirements. An NPDES discharge permit would normally be

required, however because this is a CERCLA action, a permit may not be needed, but equivalent requirements must be addressed through another mechanism. This must be reflected in your revised IM/IRA. Specific discharge requirements must also be defined and discussed in the revised IM/IRA.